

DATA STRUCTURES FOR EFFICIENT PROCESSING OF MULTICAST TRANSMISSIONS

ABSTRACT OF THE DISCLOSURE

5 Data structures, a method, and an associated transmission system for
multicast transmission on network processors in order both to minimize
multicast transmission memory requirements and to account for port
performance discrepancies. Frame data for multicast transmission on a
network processor is read into buffers to which are associated various control
structures and a reference frame. The reference frame and the associated
10 control structures permit multicast targets to be serviced without creating
multiple copies of the frame. Furthermore this same reference frame and
control structures allow buffers allocated for each multicast target to be
returned to the free buffer queue without waiting until all multicast
transmissions are complete.

TECHNICAL DISCLOSURE